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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,552	05/02/2007	Yasuaki Ishikawa	G0126.0250	1653

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DICKSTEIN SHAPIRO LLP  
1633 Broadway  
NEW YORK, NY 10019

EXAMINER
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BYRD JR., JOHN B

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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07/29/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,552	<b>Applicant(s)</b> ISHIKAWA, YASUAKI	
	<b>Examiner</b> JOHN B. BYRD JR.	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8,9,12,14-16,18 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8,9,12,14-16,18 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/17/2009, 11/16/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 14 April 2010 have been fully considered but they are not persuasive. The Applicant argues the following regarding claim 1:

A. Neither *Scheinert* nor *Keller* teach or suggest that the controller carries out authentication of the mobile terminal via the authentication terminal.

The Examiner respectfully disagrees with this assertion. *Scheinert* teaches in par.[0026] and par.[0031] that the EDB contains the authorized mobile phones that may access the PBS, and the EDB resides in the BSC, and the BSC reads on the controller and the authentication terminal (i.e., the authentication terminal resides inside of the BSC, from a functional/results perspective).

B. Neither reference teaches or suggests that, after the authentication of the mobile terminal, the micro radio-base-station device performs the position registration of the mobile terminal with reference to the controller nor that, after the position registration of the mobile terminal, the radio communication is started between the mobile terminal and the micro radio-base-station device.

The Examiner respectfully disagrees with this assertion. *Scheinert* teaches in par.[0014] and par.[0015] that restrictions are placed to allow only "authorized mobile phones" to operate when the "Private Base Station" is in the "Exclusive mode." The Examiner believes that "mobile phone operation" reads on radio communication is started between the mobile and the micro radio-base station.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 3-6, 8, 9, 12, 14-16, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Scheinert et al* (2007/0054668A1) (hereinafter *Scheinert*) in view of *Keller et al* (6,496,689 B1) (hereinafter *Keller*).

Regarding **claim 1**, *Scheinert* discloses a wireless-communication network system including

a radio-base-station device (=see Fig.1, item 2),

a mobile terminal (=see item 1),

an authentication terminal (=see par.[0010], par.[0011], and par.[0012], wherein the device that house (utilize for validating users) the EDB, which reads on the authentication terminal),

a controller having a function of generating and/or deleting user-authentication data of the mobile terminal (=see par.[0014], wherein the “UMP” reads on the controller functionality), and

a micro radio-base-station device which passes on data between the mobile terminal and a communication network (=see par.[0071]),

wherein the controller determines whether or not a utilization request transmitted from the authentication terminal is accepted, and transmits the user-authentication data when the utilization request is accepted, or a rejection notification when the utilization

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request is not accepted to the mobile terminal via the authentication terminal (=see par.[0038], par.[0012] and par.[0013]),

wherein the micro radio-base-station device receives position-registration-request data to which the user-authentication data is attached from the mobile terminal (=see par.[0039], wherein the “LUR” reads on the request data, and the “IMSI” which reads on the user-authentication data),

compares the user-authentication data and terminal information that are included in the position-registration-request data with a database included in the controller (=see par.[0039], wherein the “EDB checks the IMSI to determine...” reads on compares the user-authentication data),

performs position registration when the user-authentication data and the terminal information agree with the database, and transmits a position-registration-completion notification to the mobile terminal and the controller, and wherein (=see par.[0039], wherein the “ACK” sent reads on the transmits a position-registration-completion notification);

radio communication is started between the mobile terminal which received the position- registration-completion notification and the micro radio-base-station device (=see par.[0039], wherein it is understood that after the said actions in cited par.[0039] is conducted communication occurs),

but does not teach: when a user-authentication-data-reception-completion notification is transmitted from the mobile terminal **via the authentication terminal**, the controller transmits a user-registration-procedure- completion notification to the mobile

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terminal via the authentication terminal and performs processing for charging a user a utilization fee, wherein the micro radio-base-station device receives position-registration-request data to which the user-authentication data is attached from the mobile terminal, compares the user-authentication data and terminal information that are included in the position-registration-request data with a database included in the controller, performs position registration when the user-authentication data and the terminal information agree with the database, and transmits a position-registration-completion notification to the mobile terminal and the controller, and wherein; radio communication is started between the mobile terminal which received the position-registration-completion notification and the micro radio-base-station device.

However, in the same field of endeavor, *Keller* does teach: when a user-authentication-data-reception-completion notification is transmitted from the mobile terminal, the controller transmits a user-registration-procedure- completion notification to the mobile terminal via the authentication terminal and performs processing for charging a user a utilization fee (=see col.4, lines 25-36, wherein the "...adapted to receive charging information" reads on charging for utilization fee).

Therefore, it would have been obvious to any one of ordinary skill in the art at the time of the invention, to have combined the teachings of *Scheinert* and *Keller* to incorporated the charging of mobile services without adding to the complexity of existing devices as stated by *Keller* (=see col.3, lines58 – col.4, line 2).

Regarding **claims 3, 8, 14 and 18**, the combination teachings of *Scheinert* and *Keller* discloses a wireless-communication network system according to Claims 1,

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*Scheinert* further teaches wherein the mobile terminal transmits utilization-finish-request data to the controller via the micro radio-base-station device (=see par.[0026] and par.[0055]),

wherein the controller cancels the registered position of the mobile terminal which received the utilization-finish notification, invalidates the user-authentication data, and transmits a utilization-finish-procedure-completion notification to the mobile terminal via the micro-radio-base-station device and/or the ordering terminal (=see par.[0040]),

and *Keller* further teaches wherein when the utilization fee is paid on time, the controller performs processing for charging the user the utilization fee, and transmits the utilization-finish-procedure-completion notification and utilization-fee-statement data to the mobile terminal, and wherein the mobile terminal invalidates the user-authentication data and finishes communicating with a hot spot (=see col.4, lines 25-45).

Regarding **claim 4**, the combination teachings of *Scheinert* and *Keller* discloses a wireless-communication network system according to Claim 1, and *Scheinert* further teaches wherein the data transmission and/or reception is performed between the mobile terminal and the authentication terminal by using a communication scheme other than radio communication (=see par.[0045], wherein “OTA” reads on a communication scheme other than radio communication).

Regarding **claim 5**, the combination teachings of *Scheinert* and *Keller* discloses a wireless-communication network system according to Claim 4, and *Scheinert* further teaches wherein the communication scheme other than the radio communication is

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infrared communication and/or communication using an IC card (=see par.[0045], wherein the “OTA” and “SIM” read on IC card).

Regarding **claim 6**, *Scheinert* discloses a wireless-communication network system including a radio-base-station device (=see Fig.1, item 2), a mobile terminal (=see item 1),

an authentication terminal (=see par.[0010], par.[0011], and par.[0012], wherein the device that house/(utilize for validating users) the EDB, which reads on the authentication terminal),

a controller having a function of generating and/or deleting user-authentication data of the mobile terminal (=see par.[0014], wherein the “UMP” reads on the controller functionality),

and a micro radio-base-station device (=see par.[0071])

which passes on data between the mobile terminal and a communication network, wherein the controller determines whether or not a utilization request transmitted from the authentication terminal is accepted, and transmits the user-authentication data when the utilization request is accepted, or a rejection notification when the utilization request is not accepted to the mobile terminal via the authentication terminal (=see par.[0038], par.[0012] and par.[0013]),

transmits encoded-information data used for radio communication performed between the micro-radio-base-station device and the mobile terminal to the mobile terminal **via the authentication terminal** upon receiving user-authentication-data-



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reception completion notification transmitted from the mobile terminal **via the authentication terminal** (=see par.[0012]), and

transmits a user-registration-procedure-completion notification to the mobile terminal via the authentication terminal (=see par.[0039], wherein the “generates an ACK” reads on user-registration-procedure-completion notification) and

wherein the micro radio-base-station device receives position-registration-request data transmitted from the mobile terminal, where the user-authentication data is attached to the position-registration-request data (=see par.[0039], wherein the “LUR” reads on the request data, and the “IMSI” which reads on the user-authentication data),

compares the user-authentication data and terminal information that are included in the position-registration-request data with a database included in the controller (=see par.[0039], wherein the “EDB checks the IMSI to determine...” reads on compares the user-authentication data),

performs position registration when the user-authentication data and the terminal information agree with the database, and transmits a position-registration-completion notification to the mobile terminal and the controller (=see par.[0039], wherein the “ACK” sent reads on the transmits a position-registration-completion notification), and

wherein radio communication is started between the mobile terminal which received the position-registration-completion notification and the micro radio-base-station device on the basis of the encoded-information data (=see par.[0039]);

but fails to teach: performs processing for charging a user a utilization fee upon receiving an encoded-information-reception-completion notification transmitted from the mobile terminal **via the authentication terminal**.

However, in the same field of endeavor, *Keller* does teach: performs processing for charging a user a utilization fee upon receiving an encoded-information-reception-completion notification transmitted from the mobile terminal (=see col.4, lines 25-45).

Therefore, it would have been obvious to any one of ordinary skill in the art at the time of the invention, to have combined the teachings of *Scheinert* and *Keller* to incorporated the charging of mobile services without adding to the complexity of existing devices as stated by *Keller* (=see col.3, lines58 – col.4, line 2).

Regarding **claim 9**, the combination teachings of *Scheinert* and *Keller* discloses a wireless-communication network system according to Claim 6, and *Scheinert* further teaches wherein the communication network includes the Internet, an intranet, and a LAN (=see par.[0012] and par.[0039], wherein it is understood that “Internet Base Station Controller” reads on internet and intranet, and “Private Base Station” reads on LAN; and par.[0026]).

Regarding **claim 12**, *Scheinert* discloses a communication-service-providing method used in a wireless-communication network system constructed between a mobile terminal and a micro radio-base-station device via a communication network, the communication-service-providing method comprising the steps of:

determining whether or not a utilization request transmitted from an authentication terminal connected to the micro radio-base-station device is accepted

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(=see par.[0039]: “The EDB checks the IMSI to determine if a particular mobile phone is authorized...”),

and transmitting the user-authentication data when the utilization request is accepted (=see par.[0039]: “If authorized, the EDB sends a Positive Acknowledgement (ACK)...”),

or a rejection notification when the utilization request is not accepted to the mobile terminal via the authentication terminal (=see par.[0040]: “...if the EDB finds the mobile is unauthorized, the EDB sends a Negative Acknowledgement (NACK) ...” wherein the “NACK reads on the rejection notification);

transmitting a user-authentication-data-reception-completion notification **via the authentication terminal** to a controller connected to the micro radio-base-station device upon receiving the user-authentication data (=see par.[0039], wherein the “ACK” sent reads on the transmits a position-registration-completion notification);

transmitting, **via the authentication terminal to the mobile terminal**, encoded-information data used for radio communication performed between the micro radio-base-station device and the mobile terminal upon receiving the user-authentication-data-reception-completion notification (=see par.[0012]);

transmitting an encoded-information-reception-completion notification to the controller via the authentication terminal upon receiving the encoded-information data (=see par.[0039], wherein the “generates an ACK” reads on user-registration-procedure-completion notification);

and receiving the encoded-information-reception-completion notification, transmitting a user-registration-procedure-completion notification to the mobile terminal via the authentication terminal (=see par.[0039], wherein the “generates an ACK” reads on user-registration-procedure-completion notification), and the communication-service-providing method comprising the steps of: transmitting position-registration-request data including the user-authentication data and terminal information from the mobile terminal (=see par.[0039], wherein the “LUR” reads on the position-registration-request); comparing the user-authentication data and the terminal information that are included in the transmitted position-registration-request data with a database included in the controller (=see par.[0039], wherein the “EDB checks the IMSI to determine...” reads on compares the user-authentication data); performing position registration and transmitting a position-registration-completion notification to the mobile terminal and the controller when the user-authentication data and the terminal information agree with the database (=see par.[0039], wherein the “ACK” sent reads on the transmits a position-registration-completion notification), and starting the radio communication between the mobile terminal which received the position-registration-completion notification and the micro radio-base-station device (=see par.[0039], wherein it is understood that after the said actions in cited par.[0039] is conducted communication occurs);

but fails to teach: performing processing for charging a user a utilization fee.

However, in the same field of endeavor, *Keller* does teach: performing processing for charging a user a utilization fee (=see col.4, lines 25-45).

Therefore, it would have been obvious to any one of ordinary skill in the art at the time of the invention, to have combined the teachings of *Scheinert* and *Keller* to incorporate the charging of mobile services without adding to the complexity of existing devices as stated by *Keller* (=see col.3, lines 58 – col.4, line 2).

Regarding **claim 15**, the combination teachings of *Scheinert* and *Keller* discloses a communication-service-providing method used in the wireless-communication network system according to Claim 12, wherein the communication network includes the Internet, an intranet, and a LAN (=see par.[0012] and par.[0039], wherein it is understood that “Internet Base Station Controller” reads on internet and intranet, and “Private Base Station” reads on LAN).

Regarding **claim 16**, *Scheinert* discloses a **computer-readable information-recording medium on which a** program which makes a computer perform communication-service-providing processing in a wireless-communication network system constructed between a mobile terminal and a micro radio-base-station device via a communication network, **is recorded**, (=see Fig.2, item 6, wherein it is understood that the actions performed by the EDB must contain a software programming means), the program comprising the steps of: determining whether or not a utilization request transmitted from an authentication terminal connected to the micro radio-base-

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station device is accepted , and transmitting the user-authentication data when the utilization request is accepted, or a rejection notification when the utilization request is not accepted to the mobile terminal via the authentication terminal (=see par.[0038], par.[0012] and par.[0013]);

transmitting a user-authentication-data-reception-completion notification **via the authentication terminal** to a controller connected to the micro radio-base-station device upon receiving the user-authentication data (=see par.[0039], wherein the “generates an ACK” reads on user-registration-procedure-completion notification);

transmitting, **via the authentication terminal to the mobile terminal**, encoded-information data used for radio communication performed between the micro radio-base-station device and the mobile terminal upon receiving the user-authentication-data-reception-completion notification (=see par.[0012]);

transmitting encoded-information-reception-completion notification to the controller via the authentication terminal upon receiving the encoded-information data (=see par.[0039], wherein the “ACK” sent reads on the transmits a completion notification);

and receiving the encoded-information-reception-completion notification, transmitting a user-registration-procedure-completion notification to the mobile terminal via the authentication terminal (=see par.[0039], wherein the “ACK” sent reads on the transmits a completion notification),

the program further making the computer performs the steps of:

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transmitting position-registration-request data including the user-authentication data and terminal information from the mobile terminal (=see par.[0039], wherein the “LUR” reads on the position-registration-request);

comparing the user-authentication data and the terminal information that are included in the transmitted position-registration-request data with a database included in the controller (=see par.[0039], wherein the “EDB checks the IMSI to determine...” reads on compares the user-authentication data);

performing position registration and transmitting a position-registration-completion notification to the mobile terminal and the controller when the user-authentication data and the terminal information agree with the database (=see par.[0039], wherein the “ACK” sent reads on the transmits a position-registration-completion notification), and

starting the radio communication between the mobile terminal which received the position-registration-completion notification and the micro radio-base-station device (=see par.[0039], wherein it is understood that after the said actions in cited par.[0039] is conducted communication occurs);

but does not teach: performing processing for charging a user a utilization fee.

However, in the same field of endeavor, *Keller* does teach: performs processing for charging a user a utilization fee (=see col.4, lines 25-45).

Therefore, it would have been obvious to any one of ordinary skill in the art at the time of the invention, to have combined the teachings of *Scheinert* and *Keller* to

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incorporated the charging of mobile services without adding to the complexity of existing devices as stated by *Keller* (=see col.3, lines58 – col.4, line 2).

Regarding **claim 21**, the combination teachings of *Scheinert* and *Keller* discloses a wireless-communication network system according to Claim 3, and *Scheinert* further teaches wherein the data transmission and/or reception is performed between the mobile terminal and the authentication terminal by using a communication scheme other than radio communication (=see par.[0045], wherein “OTA” reads on a communication scheme other than radio communication).

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN B. BYRD JR. whose telephone number is (571)270-7463. The Examiner can normally be reached on M-F, 7:30am - 5:00pm, EST.

The supervisor, Charles Appiah, can be reached on 571-272-7904, if you are unable to resolve the matter with the assigned Examiner. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN B BYRD JR./  
Examiner, Art Unit 2617

/Charles N. Appiah/  
Supervisory Patent Examiner, Art Unit 2617